UNITED STATES PATENT AND TRADEMARK OFFICE

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10/798,262	03/12/2004	Yasuo Tan	1405.1081	5856

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No.	Applicant(s)
	10/798,262	TAN ET AL.
	Examiner	Art Unit	
	Ho Ting Shiu	4152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *12 March 2004, 27 January 2006*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-17 are pending in this application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 8, 13, 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4.   With respect to claims 8, 13, and 17, "a data synchronization program" is being recited. A computer program is not one of the statutory subject matter. See MPEP § 2106.01

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 5, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7.   Regarding claim 5, the word "maximum" as related to the time in the buffering

step does not define the degree of detail and renders the claim indefinite. For

examination purposes maximum time Tmax for which packets can be stored in the

buffering step is interpreted as time when the buffer overflows.

8.   Regarding claim 16, a data synchronization system is being claimed, however, it

is dependent from claim 9, which is a data synchronization method claim. It is not clear

if the claim 16 is a system or method claim and renders the claim indefinite.

9.   Regarding claim 17, a data synchronization program is being claimed, however,

it is dependent from claim 9, which is a data synchronization method claim. It is not

clear if the claim 17 is a program or method claim and renders the claim indefinite.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under
section 122(b), by another filed in the United States before the invention by the
applicant for patent or (2) a patent granted on an application for patent by
another filed in the United States before the invention by the applicant for patent,
except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application
filed in the United States only if the international application designated the
United States and was published under Article 21(2) of such treaty in the English
language.

11.   Claims 1, 3, 4, 5- 9, 11 -14, 16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohno (Pub # US 2003/0120802 A1, hereinafter Kohno).

12.   With respect to claim 1, Kohno discloses a data synchronization method performed by a computer relaying a plurality of data flows between a plurality of networks ([0067], lines 1-3, lines 6-11), comprising:

a storing step of storing identifiers of a plurality of data flows to be synchronized (fig. 2, [0069], lines 3-10, [0068], lines 9-12);

 a receiving step of receiving data flows flowing on at least one of the networks (fig. 1, [00741], lines 1-5);

a selecting step of selecting, from the received data flows, a plurality of the data flows corresponding to the stored identifiers ([0113], lines 1-5, [0114], lines 4-8);

a calculating step of calculating times when each packet included in the selected data flows has been generated by one or more sending terminals that have sent the selected data flows ([0085], lines 1-3, [0082], lines 1-4);

an order determining step of determining, in accordance with the calculated generation times, an order in which each packet included in the selected data flows is sent to one or more receiving terminals that are the destinations of the selected data flows ([0069], lines 10-18);

 a sending time determining step of determining the sending times of each packet included in the selected data flows, such that intervals between the sending times of the packets are equivalent to intervals between the generation times of the packets and the

packets are sent in accordance with said order ([0082], lines 1-4, [0083], lines 1-8); and

a sending step of sending each packet to the one or more receiving terminals, based on

the sending times ([0080], lines 8-15).

13.   With respect to claim 3, Kohno discloses, the selecting step, a plurality of data

flows made of packets are selected, which include packets specifying time data related

to times at which the one or more sending terminals sending the data flows have

generated the packets ([0069], lines 10-18); and

in the calculating step, the generation times of the packets are calculated based

on the time data ([0085], lines 1-6, [0082], lines 1-4).

15.   With respect to claim 4, Kohno discloses wherein in the sending step:

the packet sending times and the packets are temporarily stored in association with

each other ([0071], lines 10-14);

it is judged at a predetermined timing whether there are temporarily stored packets

whose sending time have been exceeded ([0142], lines 1-11); and

the packets whose sending time have been exceeded are sent out ([0144], lines 1-7,

[0142], lines 8-16).

16.   With respect to claim 5, Kohno discloses a buffering step of temporarily storing

packets included in the data flows selected in the selecting step ([0071], lines 10-14);

wherein the calculating step calculates the generation times based on an absolute time

and a timestamp specified in an RTCP packet ([0111], lines 6-12) included in the

selected data flow as well as a timestamp included in an RTP packet ([0132], lines 4-9);

and wherein the sending time determining step determines a reference time T0 for

determining the sending times based on a time Trtcp ([0154], lines 1-10) at which the

first RTCP packet has arrived from one of the sending terminals ([0153], lines 1-9)

and a maximum time Tmax for which packets can be stored in the buffering

step ([0080], lines 1-9).

17.   With respect to claim 6, Khono discloses a buffering step of temporarily storing

packets included in the data flows

selected in the selecting step; wherein the calculating step calculates the

generation times based on an absolute time and a timestamp specified in an RTCP

packet included in the selected data flow as well as a timestamp included in an

RTP packet; and wherein the sending time determining step determines a

reference time T0 for determining the sending times based on a time Trtep

at which the first RTCP packet has arrived from one of the sending terminals

and a time Tb that is necessary to store a predetermined amount of packets

in the buffering step.

18.   With respect to claim 7, Kohno discloses a data synchronization system relaying

a plurality of data flows between a plurality of networks ([0067], lines 1-3, lines 6-11),

comprising:

a storing means for storing identifiers of a plurality of data flows to be synchronized fig.

2, [0069], lines 3-10, [0068], lines 9-12);

a receiving means for receiving data flows flowing on at least one of the networks (fig. 1,

[00741], lines 1-5);

 a selecting means for selecting, from the received data flows, a plurality of the data

flows corresponding to the stored identifiers ([0113], lines 1-5, [0114], lines 4-8);

a calculating means for calculating times when each packet included in the selected

data flows has been generated by one or more sending terminals that have sent the

selected data flows ([0085], lines 1-3, [0082], lines 1-4);

an order determining means for determining, in accordance with the calculated

generation times, an order in which each packet included in the selected data

flows is sent to one or more receiving terminals that are the destinations of

the selected data flows 9[0069], lines 10-18);

a sending time determining means for determining the sending times of each packet

included in the selected data flows, such that intervals between the sending times of the

packets are equivalent to intervals between the generation times of the packets and the

packets are sent in accordance with said order ([0082], lines 1-4, [0083], lines 1-8); and

a sending means for sending each packet to the one or more receiving terminals, based

on the sending times ([0080], lines 8-15).

19.   With respect to claim 8, Kohno discloses a data synchronization program

executed on a computer relaying a plurality of data flows between a plurality of

networks, comprising:

a storing step of storing identifiers of a plurality of data flows to be synchronized (fig. 2,

[0069], lines 3-10, [0068], lines 9-12);

a receiving step of receiving data flows flowing on at least one of the networks (fig. 1,

[00741], lines 1-5);

a selecting step of selecting, from the received data flows, a plurality of the

data flows corresponding to the stored identifiers ([0113], lines 1-5, [0114], lines 4-8);

a calculating step of calculating times when each packet included in the selected data

flows has been generated by one or more sending terminals that have sent the selected

data flows ([0085], lines 1-3, [0082], lines 1-4);

an order determining step of determining, in accordance with the

calculated generation times, an order in which each packet included in the

selected data flows is sent to one or more receiving terminals that are the

destinations of the selected data flows ([0069], lines 10-18);

a sending time determining step of determining the sending times of each packet

included in the selected data flows, such that intervals between the sending times of the

packets are equivalent to intervals between the generation times of the packets and the

packets are sent in accordance with said order ([0082], lines 1-4, [0083], lines 1-8);

and a sending step of sending each packet to the one or more receiving terminals,

based on the sending times ([0080], lines 8-15).

20.   With respect to claim 9, Kohno discloses a data synchronization method

performed by a computer relaying a plurality of data flows between a plurality of

networks, comprising ([0067, lines 1-3, lines 6-11):

a receiving step of receiving, from at least one of the networks (fig. 1, [0071], lines 1-5),

a plurality of data flows made of packets ([0069, lines 1-3), including packets specifying

times at which one or more sending terminals sending the data flows have generated

the packets ([0069], lines 10-18);

a storing step of storing identifiers of a plurality of data flows to be synchronized (fig. 2,

[0069], lines 3-10, [0068], lines 9-12), and a relay address of a relaying device relaying

the plurality of data flows ([0070], lines 1-13); a selecting step of selecting, from the

data flows received in the receiving step, a plurality of the data flows corresponding to

the stored identifiers ([0113], lines 1-5, [0114], lines 4-8);

a merging step of generating a merged packet in which those packets in the

selected data flows that have the same generation time have been merged into

one packet ([0069], lines 1-10, [0068], lines 1-9); and a sending step of sending the

merged packet to the relay address ([0094], lines 6-7, [0068], lines 13-15, [0070], lines

1-13).

21.   With respect to claim 11, Kohno discloses the storing step further stores a

payload type of the respective data flows ([0069], lines 1-3); and

the merging step merges those packets in the selected data flows that have the same

payload type into one packet ([0068], lines 1-9, [0069], lines 1-3).

22.   With respect to claim 12, Kohno discloses a data synchronization system

relaying a plurality of data flows between a plurality of networks, comprising ([0067],

lines 1-9, [0069], lines 1-3):

a receiving means for receiving, from at least one of the networks (fig. 1, [0071], lines 1-

5), a plurality of data flows made of packets, including packets specifying times at which

one or more sending terminals sending the data flows have generated the packets

([0069], lines 10-18);

a storing means for storing identifiers of a plurality of data flows to be synchronized (fig.

2, [0069}, lines 3-10, [0068], lines 9-12), and a relay address of a relaying device

relaying the plurality of data flows ([0070], lines 1-13);

a selecting means for selecting, from the data flows received with the receiving means,

a plurality of the data flows corresponding to the stored identifiers ([0113], lines 1-5,

[0114], lines 4-8); -

a merging means for generating a merged packet in which those packets in the selected

data flows that have the same generation time have been merged into one packet

([0069], lines 1-10, [0068], lines 1-9); and

a sending means for sending the merged packet to the relay address ([0094], lines 6-7,

[0068], lines 13-15, [0070], lines 1-13).

23.   With respect to claim 13, Kohno discloses a data synchronization program

executed by a computer relaying a plurality of data flows between a plurality of

networks, comprising ([0067], lines 1-3, lines 6-11):

a receiving step of receiving, from at least one of the networks (fig. 1, [0071], lines 1-5),

a plurality of data flows made of packets, including packets specifying times at which

one or more sending terminals sending the data flows have generated the packets

([0069], lines 10-18);

a storing step of storing identifiers of a plurality of data flows to be synchronized (fig. 2,

[0069], lines 3-10, [0068], lines 9-12), and a relay address of a relaying device relaying

the plurality of data flows ([0070], lines 1-13);

a selecting step of selecting, from the data flows received in the receiving

step, a plurality of the data flows corresponding to the stored identifiers ([-113], lines 1-

5, [0114], lines 4-8);

a merging step of generating a merged packet in which those packets in the

selected data flows that have the same generation time have been merged into

one packet ([0069], lines 1-10, [0068], lines 1-9);

and a sending step of sending the merged packet to the relay address [(0094], lines 6-7,

[0068], lines 13-15, [0070], lines 1-13).

24.   With respect to claim 14, Kohno discloses a data synchronization method

performed by a computer relaying a plurality of data flows between a plurality of

networks, comprising ([0067], lines 1-3, lines 6-11):

a receiving step of receiving, from at least one of the networks (fig. 1, [0071], lines 1-5),

a merged packet generated by the method according to claim 9 ([0069], lines 1-10,

[0068], lines 1-9);

a storing step of storing the destination addresses of the data flows included in the

merged data flow including the merged packet ([0069], lines 1-3, [0070], lines 1-13);

a disassembling step of disassembling the merged packet and restoring the plurality of

data flows ([0069], lines 10-18);

and a sending step of sending the restored plurality of data flows to their respective

destination addresses ([0072], lines 1-16).

25.   With respect to claim 16, Kohno discloses a data synchronization system

relaying a plurality of data flows between a plurality of networks ([0067], lines 1-3, lines

6-11), comprising:

a receiving means for receiving, from at least one of the networks (fig. 1, [0071], lines 1-

5), a merged packet generated by the method according to claim 9 ([0069], lines 1-10,

[0068], lines 1-9);

a storing means for storing the destination addresses of the data flows included in the

merged data flow including the merged packet ([0069], lines 1-3, [0070], lines 1-13);

a disassembling means for disassembling the merged packet and restoring the

plurality of data flows ([0069], lines 10-18); and

a sending means for sending the restored plurality of data flows to their respective

destination addresses ([0072], lines 1-16).

26.   With respect to claim 17, Kohno discloses a data synchronization program

executed by a computer relaying a plurality of data flows between a plurality of networks

([0067], lines 1-3, lines 6-11), comprising:

a receiving step of receiving, from at least one of the networks (fig. 1, [0071], lines 1-5) ,

a merged packet generated by the method according to claim 9 ([0069], lines 1-10,

[0068], lines 1-9);

a storing step of storing the destination addresses of the data flows included in the

merged data flow including the merged packet ([0069], lines 1-3, [0070], lines 1-13);

a disassembling step of disassembling the merged packet and restoring the plurality of

data flows ([0069], lines 10-18); and

a sending step of sending the restored plurality of data flows to their respective

destination addresses ([0072], lines 1-16).

Claim Rejections - 35 USC § 103

27.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

28.   **Claims 2, 10, and 15 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Kohno in view of Olbricht et al. (US PUB 2004/0249906 A1,

hereinafter Olbricht).

29.   With respect to claim 2, Kohno discloses the invention except the storing step, a

screen for entering settings of the identifiers of the plurality of data flows to be

synchronized is displayed, and the identifiers entered in that screen are stored.

In the same field of endeavor, Olbricht discloses the storing step, a screen for

entering settings of the identifiers of the plurality of data flows to be synchronized is

displayed, and the identifiers entered in that screen are stored (fig. 4, [0009], lines 1-5,

[0020], lines 1-3, [0021], lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the teachings of Kohno with the teachings of

Olbricht in order to enter specific information the client may deem important which

allows for more accuracy in sending/receiving.

30.   With respect to claim 10, Kohno discloses the relay address of the relaying

device ([0094], lines 6-7, [0068], lines 13-15, [0070], lines 1-13) except the storing step,

a screen for entering settings of the identifiers of the plurality of data flows to be

synchronized and the relay address of the relaying device is displayed, and the

identifiers and the relay address entered in that screen are stored.

In the same field of endeavor, Olbricht discloses the storing step, a screen for

entering settings of the identifiers of the plurality of data flows to be synchronized and

the relay address of the relaying device is displayed, and the identifiers and the relay

address entered in that screen are stored (fig. 4, [0009], lines 1-5, [0020], lines 1-3,

[0021], lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the teachings of Kohno with the teachings of

Olbricht in order to enter specific information the client may deem important which

allows for more accuracy in sending/receiving.

31.   With respect to claim 15, Kohno discloses the location of the merged data flow

([0068], lines 1-9, [0069], lines 1-3) except the storing step, a screen for entering

settings of identifiers of a receiver location of the merged data flow and the respective

destination addresses of the data flows is displayed, and the identifier and destination

addresses entered in that screen are stored.

In the same field of endeavor, Olbricht discloses the storing step, a screen for

entering settings of identifiers of a receiver location of the merged data flow and the

respective destination addresses of the data flows in s displayed, and the identifier and

destination address entered in that screen are stored (fig. 4, [0009], lines 1-5, [0020],

lines 1-3, [0021], lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the teachings of Kohno with the teachings of

Olbricht in order to enter specific information the client may deem important which

allows for more accuracy in sending/receiving.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ho Ting Shiu whose telephone number is 571-270-

3810. The examiner can normally be reached on Mon-Thur (7:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nabil El-Hady can be reached on 571-272-3963. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTS
11/20/2007

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SUPERVISORY PATENT EXAMINER